

## **AMENDMENTS TO THE SPECIFICATION:**

**Please amend paragraph [0003] beginning at page 1, line 16, as follows:**

[0003] Fig. 6 is a perspective view showing the constitution of a radiation therapy treatment machine called a linear accelerator (hereafter referred to as linac). The linac includes a gantry 61, a collimator 62, a rotation shaft 64 for the gantry 61, a couch 65, and a rotation shaft 66 for the couch 65. Gantry 61 incorporates a beam source in its head, and rotates about rotation shaft 64 in the directions indicated by arrow A in the drawing. Collimator 62 is connected with the head of gantry 61, and rotates in the directions indicated by arrow B in the drawing. Collimator 62 incorporates a multileaf collimator, and the radiation ray from the radiation source inside gantry 61 is masked to any field shape, and then, irradiates toward couch 65. Couch 65 is utilized to support the patient, and rotates about couch rotation shaft 66 in the directions of C in the drawing. Couch rotation shaft 66 coincides with a vertical line in a state where collimator 62 is facing downward. In general, the gantry angle 0 degrees is defined in the linac when collimator 62 is facing directly downward, and the angle increases clockwise. Fig. 6 [[7]] shows where the gantry angle is 0 degrees. In general, a linac can rotate from 180 degrees to 180 degrees passing through 0 degrees. When the radiation ray irradiates the target, it is necessary to irradiate from a direction that avoids critical organs such as the eyeball and the spinal cord by changing the gantry angle, the collimator angle, and the couch angle.

**After paragraph [0044], please insert the following:**

Fig. 12 is a block diagram showing a first aspect of the present invention.

Fig. 13 is a block diagram showing a second aspect of the present invention.

Fig. 14 is a block diagram showing a third aspect of the present invention.

Fig. 15 is a block diagram showing a fourth aspect of the present invention.

Fig. 16 is a block diagram showing a fifth aspect of the present invention.

Fig. 17 is a block diagram showing a sixth aspect of the present invention.

Fig. 18 is a block diagram showing a seventh aspect of the present invention.

Fig. 19 is a block diagram showing an eighth aspect of the present invention.

Fig. 20 is a block diagram showing a ninth aspect of the present invention.

**Please amend paragraph [0050] beginning at page 12, line 24, as follows:**

[0050] Fig. 2 is an enlarged view at start point 15 of area 14 in Fig. 1. In this drawing, reference number 21a indicates a point next to start point 15, reference number 21b indicates a point next to start point 15 after the correction, 22a is a point next to 21a, and 22b is a point next to 21b after the correction. The leaf motion speed limit is generally 2 to 9 mm per 2 degrees and the value depends on the linac. The present embodiment is an example where the leaf motion control uses 2 mm per 2 degrees as the leaf motion speed limit. Symbols □ in the drawing are leaf positions corresponding to the curve 11 in Fig. 1, and symbols Δ are leaf positions when the motion control is applied, and corresponds to the dotted line (a) in Fig 1. The leaf motion distance from start point 15 to point 21a is 3 mm. This value exceeds the motion limit of 2 mm, and motion control is applied at point 21a ~~21b~~. Wherein the motion distance from start point 15 is limited to 2 mm. Point 22a is compared with point 21b, and since the accumulated difference is 5 mm, this point is controlled in order for the difference to be equal to or less than 2 mm and moved to point 22b. This operation is sequentially applied to each point, thereby the dotted line (a) in Fig. 1 is eventually obtained.